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ORIGINAL ARTICLES.

Report of Cases.

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Read at the Thirty-first Annual meeting of the Kansas Medical Society, Topeka, May 12-14, 1897.

Case I—Mrs. M., married, aged 32, was operated on the 26th of December, 1894. The right ovary was removed for a large apoplectic infarct. The entire ovary was disorganized, leaving but a small shell of normal ovarian tissue. The left ovary was not removed, It contained a cyst upon one end as large as a filbert. This was evacuated and excised. The patient's recovery was uninterrupted, and she returned home after spending the usual length of time in the hospital.

I saw nothing further of her until July 5, 1896. On that day I visited her in her home in one of the small towns of Illinois, and found her five months advanced with her fourth or fifth pregnancy and suffering from an intestinal obstruction. She was enormously tympanitic.

While visiting her what might be called one of the tragedies of a doctor's life occurred in her house. Scarlet fever was rife in the village and it visited her little ones. Just as I was examining her, her little eight year old son expired in the adjoining room. Regarding any laparotomy in the midst of such surroundings as being almost positively fatal, I had her brought to Chicago that night and transferred to the Presbyterian Hospital.

On the morning of July 6th the abdomen was opened and it was found that an adhesion of the small intestine, not larger in area than an inch square, to the stump of the removed right ovary existed. This was removed by careful tearing dissections.

The gradual increase in the size of the uterus, incident to pregnancy, had resulted in the progressive strangulation of the intestine until a complete occlusion occurred. The patient was put to bed in good condition, but suffered greatly with nausea and vomiting for several days afterwards. Between the eleventh and twelfth day after the operation she suddenly developed a high temperature and pulse, and the next day she was duly delivered of a fœtus. From that time she made a rapid and uneventful recovery.

Attention is called in passing to the fact that pregnancy was possible after the excision of a cyst from the remaining ovary in this case. While this point is not a new one, this case affords an illustration of the possibilities of conservative gynecological surgery.

Case II—Mrs. K., aged 32 years, underwent an operation for laparotomy at the third month of her pregnancy because of a fixed tumor in the right iliac fossa.

The abdomen was opened on the first day of April, 1892, the possibilities of an ensuing miscarriage having been fully explained to the patient. She wanted to carry her pregnancy to full term but her sufferings had increased to such an extent that she was willing to undergo and risk anything, if a laparotomy promised any relief.

The right tube and ovary were found buried in a mass of adhesions that extended to the brim of the pelvis. The anterior abdominal wall was adherent to the mass and the uterus, in attempting to rise, was drawn firmly to the right side by the immovable mass of adhesions. To break up these adhesions required a prolonged effort, result-

ing in a large amount of hemorrhage, but the tube and ovary were finally separated from their surroundings and removed. The abdomen was closed in the usual manner and the patient put to bed. She recovered promptly and returned to her distant home in the Northwest. Nine months later I received a letter from her advising me of her confinement three months previously, and enclosing a photograph of the baby which indicated it had received no damage from the operation in its intra-uterine development.

This case is in great contrast to the preceding one in its outcome. It only illustrates again what has so often been said about the varying resistance of grave disturbances offered by the pregnant uterus.

Case III—Mrs. U., aged 24 years, married six months, was first seen February 27, 1895. The following are fragments of her case history:

Her married life run along uneventfully for three months when she began to have hemorrhages from the genital passages. She had had four such losses of blood about two weeks apart, each one being about a quart in quantity. Each hemorrhage occurred just at the close of a urination. During these six or eight weeks of hemorrhages she lost from 23 to 28 pounds in weight. When I saw her she was very anemic from blood loss, but had a good appetite and was gaining in all particulars. About four days before I saw her she was seized with great pain in the bladder after urinating. This pain continued until she passed a foreign substance which was brought to me. It proved to be a right tibia of a fœtus. It was an inch in length. Light was now thrown upon the existing condition of things.

Examination revealed a very illy and faintly defined enlargement in the top of the right broad ligament near the uterus. The uterus did not exhibit the usual signs of pregnancy. She was told to call again in a few days for another examination.

On the 11th of March she passed a humerous through the urethra. She told me she had passed "numerous small round bones not worth saving." Examination on the 18th of March failed to reveal even the faintly defined enlargement found on the 27th of February. I again advised her to wait. On the 23d of March she again had frightful pains upon urinating which began the night before. The vessicle contractions were so severe and long that hypodermic injections of morphine were used. It was evident that a larger bone was trying to escape. Digital pressure through the vagina against the bladder caused the most exquisite pain. It was then decided to wait two days until her father, who is a surgeon, could come to Chicago to consult over the case.

A consultation two days later resulted in her removal that day to the Presbyterian Hospital. The next morning she was anesthetised, and the bladder filled with a solution of boric acid after the urethra had been well dilated. With a dressing forceps I was enabled to remove through this orifice the left clavicle and the right ilium. In the course of three or four days the patient went home. Nothing further was done surgically until the 26th of April—a month later. During this month at home it was necessary to administer hypodermics for the vessicle spasms of pain upon passing other bones.

About the 12th of April she began to present evidences of general sepsis which increased until a laparotomy was decided upon. On the 26th of April the abdomen was opened and the nidus of this extra-uterine pregnancy was a knuckle of the small intestine. It was attached to the bladder over the top of the uterus, at which point an ulceration and fistula had resulted through which the hemorrhages and fœtal bones had escaped. I could not determine whether it was a tubal pregnancy or not because in the manipulations an opening into the intestine was made in spite of the most careful handling. The intestinal wall at this point was fully three-fourths of an inch thick. I had never seen anything like it before. Closure of the intestinal opening was made, the wound was cleaned as nearly perfectly as could be under the circumstances, sterilized gauze packing was used, and the abdominal wound closed. The patient sank

and died five and a half days subsequently.

One point of interest in this case is the high location in the abdomen of the ectopic pregnancy, it being about half way between the pubis and the umbilicus and a little to the right of the median line.

Case IV—CANCER OF THE UTERI TREATED BY CURETTING, CAUTERIZING, AND THE CARBIDE OF CALCIUM. Mrs. Y., aged 69 years. Her last child was born forty-six years ago. She passed the menopause at 48. For twenty-one years she has had no bloody vaginal discharge.

On December 14, 1896, she complained to me saying she had menorrhagia for six months. At first the bloody flow was only at intervals. At the time of her visit, it was continuous. Examination revealed that about two-thirds of the cervix was absent from carcinomatous ulceration. About one-third of the cervix remained uninvaded. Four days later, at the Presbyterian Hospital, I began to do a vaginal hysterectomy. A very careful examination under anesthesia revealed an invasion, as I interpreted it, of the right broad ligament with thickening and some degree of anchylosis of the uterus. All that was done was to curette very thoroughly and burn with the Paquelin cautery. A cavity was left fully two-thirds the size of an ordinary hen's egg. Into this I placed a piece of the carbide of calcium the size of the last joint of my little finger. I packed a large amount of iodoform gauze against the piece of carbide of calcium and filled the vagina with gauze. In a week, after leaving the first piece of carbide of calcium in four days, I repeated the treatment with this agent, leaving it in three days. After each treatment, upon the removal of the gauze, the wound was clean from necrotic debris, hemorrhage, and odor. The cavity left by the curetting was beginning to contract very rapidly. After the removal of each iodoform gauze packing naught remained but sand. The third treatment was made ten days later with the same result, namely, the utter absence of hemorrhage, discharge of necrotic debris, odors, and the contracting of the cavity. These treatments have been continued to the present time, once in ten days or two weeks.

The cavity produced by the curetting has entirely disappeared, the thickening in the right broad ligament has disappeared, the patient has not had a drop of hemorrhage nor a particle of discharge or odor. She seems to be entirely well in all particulars.

I have treated many cases of inoperable uterine cancer in the past by means of curetting and the use of the Paquelin cautery and have never seen one in this state four months after operation.

Several months ago the use of the carbide of calcium I saw mentioned in some medical journal. The notice of it was comprised in two or three lines. No attempt was offered to explain the rationale of the action of the drug or the prognosis of such cases.

Carbide of calcium is a commercial product that produces acetylene gas. The carbide exposed to moisture results in the evolution of the gas. When a piece of the carbide of calcium is placed in the wound, the escape of the gas produced thereby resembles the sound attendent upon the frying of bacon or beefsteak in a hot spider. The only explanation that I can offer for the curative action of this agent is one of two things—either, first, the acetylene gas itself which acts locally and is rapidly absorbed, destroying the cancer cells at the seat of the wound, and along the course of the lymphatics, and the blood vessels which they traverse, or, secondly, the action of the lime salts upon the cancer cells.

Upon the suggestion of Prof. Walter S. Haines, and under the direction and assistance of Prof. Ludwig Hesktœn, I am prosecuting a series of bacteriological experiments at the present time in the Rush Medical College laboratory, upon the germicidal power of the carbide of calcium. At a future time I expect to make a report on this subject.

Case V—A CASE OF NEPHRECTOMY WITH SOME OBSERVATIONS OF THE SUPPLEMENTAL FUNCTION OF THE KIDNEYS. Mrs. Dr. J. J. A., aged 36, married ten years, multipara. She visited me first on the 30th of December, 1896. She said she had a growing tumor in the right iliac and hypochondriac regions.

It had been growing to her knowledge for about five months. The tumor appeared to be freely mobile and was as large as a medium sized cocoanut. The diagnosis made was probable sarcoma of the right kidney.

The operation was performed the next day with the assistance of Prof. D. W. Graham. The incision was made parallel with the median line from the tenth costal cartilage down on a level with the right anterior superior spinous process. No intestines existed between the tumor and the abdominal walls. Upon opening the abdomen I came down upon the capsule of the tumor at once. Upon tracing it afterwards it was to all appearances continuous with the right kidney. It was deemed advisable to open the capsule and shell out the entire tumor. Gradually the capsule of the tumor was divided longitudially, and the process of enucleation was begun. Twenty-nine-thirtieths of the tumor at least was easily removed from the capsule, but at its upper end it encroached upon and pushed aside the vena cava to such an extent that the continuation of the enucleation became a matter of the utmost gravity. By the most careful dissection with a blunt instrument we were enabled at last to separate and turn out the entire growth, but at the very last moment there was an appalling flow of venous blood from the bottom of the wound. After checking the hemorrhage with snap forceps it was found that we had not touched the kidney at all. We were entirely absorbed in permanently accomplishing hæmostasis. After the use of numerous transfixing cat-gut ligatures, the hemorrhage was stopped. The conclusion was reached that it came from the renal vein. Subsequent developments would seem to confirm this idea. The superior end of the tumor had so lifted forward the ribs, and pushed upward the gall bladder, the kidney and the liver that we felt quite pardoned that the diagnosis of the kidney had been made. We found that the gall bladder, the liver and the kidneys were entirely healthy. Upon arranging to complete the operation, we found that we had cut off the right ureter. It resided in the anterior wall of the capsule of the tumor. This showed that the tumor was a post-peritoneal affair, which in its development had pushed the ureter forward until the latter was compressed against the anterior abdominal wall. Upon searching for the distal end of the ureter, we were unable to find it. The patient had already lost a large quantity of blood, she was greatly blanched, the pulse was much accelerated, and it was deemed advisable to dress the wound open, permitting the urine to escape.

Subsequent to this operation a daily record of the urinations from the bladder was kept until the second operation. This means that the secretion of the left kidney could be recorded; obviovsly the amount secreted by the right kidney could not be recorded. Catheterizings of the first day yielded nine drachms of urine; of the second day, two drachms; of the third dry, ten drachms. It continued this way until the eleventh day, when the patient passed an ounce and a half of urine by the bladder. Between the twelfth and twenty-first days, she passed quantities varying from eveven ounces to fourteen ounces in that period of time. It varied from two drachms to seventeen drachms in that time.

On the twenty-first day after the operation the patient passed ten ounces of urine by the bladder. On this day, the secondary operation was performed for the removal of the right kidney. When examined at the first operation the right kidney was found to be of the normal size. At the time of its removal it was found to be nine or ten times its normal size. Indeed, it was mistaken for the liver at first because it was so large.

I had Profs. Graham and Bevan to assist me at this operation. The use of a large snap forceps upon the blood vessels of the kidney, which was easily enucleated from its bed, was first accomplished. When well satisfied with this step, the kidney was cut away in sections with large curved scissors. A transfixion ligature through the renal pedicle enabled me to secure the blood vessels with no further difficulty. The wound was dressed in the usual manner, and the patient put to bed in good condition. Her re-

covery was uninterrupted, and at the end of six or eight weeks she returned to her distant home.

The day immediately following the second operation the left kidney secreted twenty-four ounces of urine. On the second day it secreted forty ounces of urine, and on the third day it secreted fifty-seven ounces of urine. Subsequently, until she went home, the amount of urine varied between the extreme of fifty-seven ounces and a smaller quantity, which seemed to indicate that about the normal amount of urinary secretions obtained.

Attention is called to the extremely small amount of secretion from the left kidney during the first few days after the first operation, and the sudden and extraordinary increase of its secretion after the second operation. Attention is called to another point also, and that is the enormous increase of the size of the right kidney after the first operation.

Persecution of Consumptives.

Medical Standard.

Just a hundred years before the discovery of the tubercle bacillus, a law was passed in Naples (*N. Y. Med. Jour.; Med. Brief,*) on the recommendation of the highest medical authorities, regarding the isolation of tuberculous patients. This law was enforced from July 18, 1782. The following were some of the provisions of that sanitary law:

1. Every physician was obliged to report every case of pulmonary phthisis directly he was enabled to establish its diagnosis. Failure to comply with this requirement of the law was punishable by a fine of three hundred ducats. For a second similar offense an irrevocable exile of ten years was prescribed.

2. Poor patients were transferred to a hospital as soon as the diagnosis was established.

3. All furniture in use in rooms occupied by phthisical patients was to be burned, or rendered innocuous by other means.

4. The local magistrates were empowered to cause all rooms occupied by such patients to be renovated by calcomining, painting, and papering the walls and ceilings. They were further empowered to replace all woodwork in the room, such as floors and windows, with new material.

5. A penalty was inflicted upon those who bought or offered for sale any article of furniture that had a place in a room previously occupied by a phthisical patient.

Regarding the unusually severe law, Uffelmann (*Berl. Klin. Woch.*) says that he believed tuberculosus patients were placed in the same category as those suffering from the pest. Having once appeared in a family, tuberculosis, according to the edict to the law of Naples, was one of the severest afflictions and hardships that could have occurred to a family. Such a family was refused a residence by all house and land owners. Driven from place to place, the head of the family soon saw his business and occupation disappear, only to be replaced by poverty and misery. Houses in which phthisis had developed were shunned. There was no restitution and no indemnity by the authorities. Indescribable hardships, says De Renzi (Storia della Medicina in Italia), followed the operation of this obnoxious law. Regardless of public sentiment, and the opposition raised by some members of the medical profession of Naples, the government put the law into practice with a severity and strictness that was almost unknown previously.

But with what effect? Absolutely nothing was effected by these inhuman measures. At the expiration of fifty-six years, during all of which time the law was in operation, there was no diminution in the number of tuberculous patients, the disease prevaling with the same severity and fatality.

For excessive sweating the following dusting powder is recommended:

℞ Pulv. acidi salicylic, gr. x-xx
Pulv. acidi bovici, ℥ ij
Pulv. amyli, ℥ ij
M. (Stelwagen).

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Topeka, Kansas, Saturday, July 17, 1897.

A new society has been organized at St. Louis under the name of the Missouri Medical League of St. Louis. It is essentially a protective association. It seeks to secure egislation toward the elevation of medical education, the suppression of the dispensary abuse, and to secure a national health board. What it will accomplish is yet to be seen, but we have already learned that without unaminty we may expect nothing from politicians and monopolies. But in order to have a complete organization we must at least for this purpose abandon all sectarianism.

Such an organization in Kansas, if harmony could be preserved, would certainly make itself strongly felt if it did not succeed in over-riding the strength of the quacks and their supporters. If every State would organize in this way, and throw their combined influence in favor of a national board of health, it could be secured. A union of the medical profession of the United States would be a formidable opponent in any political fight.

A SALOON keeper in Kansas City has been arrested for complicity in the murder of Dr. Berger. It seems that evidence has been found showing that the saloon keeper instigated the attack and gloated over it afterward. If the evidence given is true it was a cold, premeditated assassination..

A NEW health resort is being established in Arkansas on the line of the Kansas City, Pittsburg & Gulf, about fifteen miles from Mena. The hotel is to be built on the highest point in the range of mountains, which will be over 3,200 feet above sea level.

Two of the most prominent members of the profession, Dr. J. Lewis Smith and William T. Lusk, have recently died. Few men in the list of authors have reached such popularity or held such confidence as have these two men.

Section in Orthopedic Surgery.

Meeting of May 21, 1897, New York Academy of Medicine.

Dislocation of the Peroneus and Peroneus Brevis—Dr. W. R. Townsend presented a young man of 20 years of age whose peroneal tendons were easily dislocated to the front of the malleolus. The right foot had been affected in this way for many years, the left only for the past seven months. On walking and on rising from a chair, the tendons would slip over the malleolus and cause considerable disability till they were replaced by the hand. The boy did not have much pain, but he was easily fatigued. Dr. Townsend had hastily reviewed the literature of the subject. Dr. L. A. Sayre reported a case in 1870. In 1876 Dr. Beach,

of Boston, reported eighteen cases, including one of his own. Gillet de Grandcourt reported ten cases in 1878. Treves said it was caused by sudden and violent contraction of the muscles when the limb is in such a position as to favor displacement, and that it may be treated by pads and pressure, and that in some cases it was advisable to replace the tendons and retain them by suturing the torn edges of the sheath.

Dr. R. Whitman suggested deepening the channel, replacing the tendons in the groove in the bone, and giving them a new covering of periosteum or fibrous tissue. This might be possible without removing the sheath.

Dr. A. B. Judson said that the peronei were comparatively small and unimportant muscles. To a slight degree they assisted the muscles of the calf to extend the foot on the leg. Aside from this their function was to evert the sole of the foot, and this function was not seriously impaired by displacement of the tendons to the front of the malleolus. He thought that the patient would get no benefit from an operation, and that practically no treatment was needed.

Dr. Whitman said that the discomfort caused by the slipping of the tendons must be considerable, and that the boy would be better off if this could be stopped.

Dr. Townsend said that the patient had recognized the disability and had come on account of it, and he did not think it was fair to tell him that we could do nothing for him without trying. He thought an attempt should be made to prevent the slipping of the tendons by the application of pads and pressure before an operation was decided on.

A Case of Traumatic Spine with Rectal and Vesical Paralysis—Dr. J. P. Fiske presented a patient, a man 33 years of age, who had been under treatment fourteen months, and under observation thirty-four months, from the time of the injury. When first seen he was in a condition of complete helplesness. He could not move in bed, and if turned or moved by his attendants he suffered the greatest pain. Urine was constantly flowing, and he was not conscious of the passage of fæces. Recovery had been complete with control of the sphncters. He was now walking without assistance, and had returned to his work. The accident had been attended with great violence. While working as a harness-maker the boards gave way under him as he was carrying a heavy load, and his right leg went through a hole in the floor. The spine was forcibly flexed, and he became unconscious. The twentieth day after the injury rigidity of the spine and muscular spasm were marked. There were complete paralysis from the waist down as regards voluntary motion, incontinence of urine and fæces, and pain in the dorso-lumbar region, aggravated by the slightest motion. Crepitus and spinal deformity were absent. The diagnosis was severe traumatism of the spine, concussion of the cord, more or less complete rupture of the ligament, and possibly partial dislocation of one of the lumbar vertebræ with spontaneous reduction. He was at once encased in plaster of Paris from the axillæ down to and including the pelvis, with immediate considerable relief. The plaster jacket was renewed when necessary, and was worn day and night for ten months. This treatment, with massage, frequent change of position, alcohol baths, and such medication as was required by his poor general condition and the vesical symptoms, was attended by gradual recovery. There were no bed-sores. At the end of four months he sat up in bed and was lifted into a steamer chair. In seven months he had regained control of his rectum and could walk a short distance with crutches. From this time his recovery was more rapid. The incontinence of urine persisted longer than the other symptoms, but ceased after a time, and for the past twelve months he has been a perfectly well man. This case showed clearly the immediate and permanent relief which followed absolute fixation after severe spinal injury. Patients treated without persistent fixation were liable to be constantly troubled with pain in the back and legs, and to present the symptoms of railway spine. Dr. Fiske added that these cases were often considered hopeless. He

had presented the patient as an example of what continued fixation and supporting treatment would accomplish.

An Ischiatic Crutch Used in Place of an Artificial Limb—Dr. A. B. Judson presented a boy 9 years of age who was wearing an ischiatic crutch instead of axillary crutches or an artificial limb. Amputation had been performed below the knee after a railroad accident. The case illustrated the comfort and ability which this apparatus was able to secure in the treatment of these affections of the lower extremitie, which require that the weight of the body be removed from the affected limb. This use of the skeleton of the pelvis was not a new thing. Ischiatic support was a feature of Dr. Fayette Taylor's hip-splint described in 1867. In fact, the long hip-splint was an ischiatic crutch with the added function of traction. In the instrument shown the crutch consisted of an upright steel piece, adjustable in length to meet the growth of the patient, with an Indian rubber crutch tip at the foot and a semicircular pelvic band carrying a single perineal strap. It also had a shoulder strap, which transferred the weight of the splint to the opposite shoulder; a steel knee piece, restraining the limb antero-posteriorly, and a webbing strap above the knee. There was no customary leather strap surrounding the splint and the ankle, because the lower part of the leg was absent. Although the stump was flexed in walking there was no possibility of anchylosis interfering with the subsequent use of an artificial leg because the knee was free from inflammation, which necessarily preceded anchylosis. The apparatus was easily provided with a joint at the level of the knee, and this was desirable in convalescent hip disease, if the limb was so long as to be inconvenient if constantly extended.

Osteotomy for Inversion in Club Foot—Dr. Townsend, at the request of Dr. J. V. Gibney, presented a girl 5 years of age, whose feet had been treated by Phelps' operation, by braces and by building up the outer side of her shoes. On February 16, 1897, to correct inversion, subcutaneous osteotomy of both tibiæ had been performed, and also right achillotomy. The lower fragments of the tibia were rotated outward and the limbs put in plaster of Paris. The inversion had been entirely corrected. Dr. R. L. Swan, of Dublin, who had described this operation, after an experience in the treatment of twenty patients with good results, had said that rotation of the limb as the result of equinovarus, and which persists after the latter is corrected, is due to trouble below the knee, that when these patients walk and attempt to toe out, they throw the entire limb out by rotation of the thigh, and the gait is awkward. The toeing in is due to the fact that the entire leg is rotated in and the external malleolus is too far forwards. To overcome this he divides the tibiæ only, rotating and bringing outwards the lower fragment, thus placing the internal malleolus further forward as regards its relation with the external malleolus.

Dr. Judson said that for the prevention of inversion he relied on the thorough correction of the equino-varus. If this was done the child would avoid toeing in, either unconsciously or later from pride.

Dr. Whitman said that division of the bones of the leg was a very old operation for the correction of the in-toeing of club foot.

Dr. Townsend said that Dr. Swan divided only the tibia, and was very careful not to divide the fibula.

Dr. Taylor had noticed that the feet in the case shown had not been fully corrected before the operation. The child walked very well now and the result was very good, but it seemed uncertain that this condition would prove permanent. He believed that the persistence of inversion in many of these patients was due to incomplete correction of the deformity.

Calcaneo-Valgus with Subluxation of the Astragalus—Dr. Taylor presented a baby affected with congenital calcaneo-valgus, with a very unusual degree of dislocation, or subluxation forward of the astragalus. The The heel was unduly prominent. The astragalus was displaced forward, while the fibula was behind its normal position. Treatment had been gradual reduction and

plaster of Paris fixations.

Coxa Vara—Dr. Whitman presented a boy 16 years of age, affected with bending of the neck of the femur of about twelve months duration. He walked with a limp and eversion of the foot. The elevation and prominence of the trochanter were increased by flexion. Limitation of abduction, actual shortening of one-half an inch with marked apparent shortening from habitual abduction were all present. The treatment would be by removing the weight of the body from the weak femur by the use of a perineal crutch, massage, forcible stretching of the abductors, and, if necessary, sub-trochanteric osteotomy. Bending of the neck of the femur was not due to general rickets or the rickets of adolescence, of which there were cases on record. There was, however, a weakness of adolescence which, under favorable conditions, caused this and similar deformities.

The "Boiled Hand" in Surgery.

New York Medical Journal.

In the *Centralblatt fur Chirurgie*, Dr. W. Zoege von Manteuffel, of Dorpat, argues in favor of the use of rubber gloves in surgical work. The disinfection of the surgeon's hands, he says, is still an unsolved problem, in spite of all the practical results of the surgery of the present day which would seem to show the contrary. We are not yet in a position to disinfect our hands to such an extent that the disinfection will bear close critical tests under all circumstances. This we may learn from Kummell's, Furbringer's, Sanger's and Reinecke's experiments, from von Bergmann's demonstrations at the last international congress but one, and from the recent investigations of Launstein and others. We may secure a relative, but not an absolute freedom from germs, and we must always take into account the variable degree to which the vital properties of the tissues of the person operated on are called upon to correct the faulty disinfection of our hands, however slight the faultiness may be. In general, therefore, we accomplish the desired result, but we do not secure absolute freedom of the hands from germs when we have touched in fæcal matter or pus.

In consequence of the very variegated material that he has to deal with in the Dorpat City Hospital, and the necessity of operating promiscuously upon uninfected and septic patients, of opening abscesses and then dressing wounds, Dr. von Manteuffel has come to the practice of protecting his hands against infection by the use of boiled rubber gloves. One can get along well enough without this device, he says, if he has a great number of trained assistants, but even after repeated washings—nay, on the following day, too, in the case of an operation on a very septic person—he can not rid himself of the uncomfortable feeling that his hands are not quite right, although at present he can soon do away with the unpleasant odor which formerly, when the use of alcohol as a disinfectant was not yet understood, clung to the hands for an extraordinary length of time.

The author says that he soon came to recognize an additional advantage of the gloves. He himself does not suffer with furuncles, but one of his assistants had to struggle with operative boils continually, and in this task the gloves were found of great value. Finally, the usefulness of the boiled gloves was illustrated most strikingly when wounded persons requiring immediate aid were brought in, and five minutes spent in disinfecting the hands meant a serious loss of time. The first plugging of a wound involving the internal mammary artery, he remarks, may be done with the gloves on, and thus time be gained for careful disinfection. The same is true in regard to various severe abdominal wounds.

At present he uses the gloves in operations on septic subjects; in operations on clean wounds, the treatment of which does not admit of postponement, provided he has to deal with anything septic; in case he had any wound, furuncle, or the like, on his hand; and in sudden emergencies. By operations that can not be postponed he does not understand merely kelotomy, trachetomy

etc., short operations that in themselves can not be deferred; there are often extraneous circumstances that demand the performance of an operation at a certain time, just the time when the surgeon has on hand, for example, a lesion that does not admit of its disinfection.

In all such cases as he has mentioned it is, in the author's opinion, not always—he would rather say never—possible to disinfect the hands adequately. One may console himself, in the case of a person brought in with an injury just received, that of two evils he is choosing the lesser, that above all else the immediate danger must be met; but after the operation, done with an infected or diseased hand, one will have the memory on his conscience either of something no worse than a suppurating fistula, or of general septic infection. Of course, says Dr. von Manteuffel, it is somewhat awkward to operate with gloves on. In septic cases this is not of very great consequence, for in them there are generally no technical difficulties. It is different, however, when we cover the infected or wounded hand, insusceptible of disinfection, with the rubber glove and undertake an aseptic operation. If the glove fits close the hand becomes anaemic, and is soon fatigued. The gloves in the market have another defect; there is no expansion for the ball of the thumb, so it is difficult to abduct that digit. Moreover, if the fingers are too long, they impede the nimble handling of instruments, especially those having the form of scissors. But even with well-fitted gloves, to some extent furnished to measure, the operation will probably be somewhat prolonged. But what is this, asks the author, compared to absolute reliability of the "boiled hand?" Finally, so far as rapidity is concerned, even major operations, he says, may be done without noteworthy loss of time. Besides septic operations, he has used the gloves in Bassini's operation for the radical cure of hernia, in two cases of radical operation for umbillical hernia, in a radical operation for inguinal hernia in the female, and in a resection of the elbow joint by means of a radical incision. Perhaps, he says, these operations lasted from five to ten minutes longer than usual, but he is not yet thoroughly accustomed to the gloves, and has none that fit well.

Of course, he adds, he considers it incumbent on him to disinfect his hands first, so far as the circumstances of the case may permit, so that, in the event of the glove being nicked, at least no wholly disinfected skin shall be exposed; this indeed, is required for the mere drawing on of the gloves, although a sterilized glove may be used for that purpose. He has the sleeve of his operating gown close about the wrist, or at least reaching down as far as that, and the arm disinfected to the elbow. Thus far, he has used gloves somewhat longer than those employed by chemists, reaching up so as to inclose the wristband.

Recently he has used the rubber glove, or at least a rubber finger-stall, in examinations per anum, provided no fine detail had to be made out, and it is astonishing, he says, how little it interferes with palpation if it fits snug. On the whole, he recommends boiled rubber gloves as a very useful article for the operating room. Moreover, he says, they must be particularly useful in country practice, carried about in a glass receptacle, for disinfection of the hands in a farm-house is almost always defective.

The Function of the Thyroid Gland.

American Medico-Surgical Bulletin.

Dr. A. Chassevant (*Les nouveaux Remedes*) in speaking of the function of the thyroid gland, says little was known of the function of this organ until very recently. Reverdin was the first to investigate this subject seriously. He, with others, noticed that extirpation of the gland induced certain cachectic phenomena. He further noticed that these phenomena greatly resembled the symptoms of a disease called "myxedema," which at that time had not received much attention, and called these collective symptoms "post-operative myxedema, or strumiprive cachexia." He believed that the derangements accompanying myxedema, as

well as the symptoms following removal of the thyroid body, were due to the loss of function of the thyroid. When extirpation was practiced on animals, the same train of symptoms was observed, except that the disturbances in these animals– dog, cat, monkey, etc.—were mainly convulsive phenomena; whereas those in man were usually trophic, the reverse being true with man and animals in exceptional instances, myxedema having been observed in a dog.

In certain subjects—rats, rabbits, pigeons, and lambs—these post-operative derangements did not occur. In the case of the rabbit, this immunity was proven to be due to the presence of accessory thyroid glands, and when these were removed the same sequelæ were present as in the dog, etc.

Reverdin and Simon reached the conclusion that spontaneous myxedema, post-operative myxedema, and cretinism are different forms of the same degenerative process and are due to interference with, or functional loss of, the thyroid body. Schiff showed that grafting a piece of thyroid would prevent the usual symptoms following thyroidectomy, or cause them to disappear after being once apparent. This benefit was not of long duration, as the grafted thyroid rapidly lost its function and histologic structure.

Gley then stated that intravenous injections of thyroid juices prevent the morbid processes consecutive to the removal of the gland. This method of treatment was followed until Howitz showed that ingestion of the thyroid gland, in the form of pills, powders, tablets, or extracts of the fresh gland, exerts the same influence over the myxedematous patients as intra-venous or subcutaneous injection of thyroid juice.

The study of the conditions following thyroidectomy and the results obtained by administration of thyroid gland in one form or another in these patients, caused this gland to be regarded as an organ with an antitoxic function. Certain investigators have demonstrated that the blood of animals whose thyroid has been removed, causes no disturbances when injected into healthy animals; but when introduced into the system of animals whose glands have just been removed, it rapidly produces convulsive affections. The toxicity of the urine is considerably increased in the operated animals. The cortical portion of the kidney is affected, being the seat of important inflammatory and degenerative lesions. It is stated that cellular changes take place in the anterior cornua as well as degeneration of the central nervous system.

Nothing certain has thus far been ascertained as to the exact nature of the thyroid poison. One authority states that the thyroid destroys toxic products of an analogous constitution to caffeine; another says it is mucine that is destroyed; still another, that it destroys an albuminoid principle which he extracted from the gland and called "thyroproteid," because when this substance is injected into an animal it produces phenomena such as are observed in strumiprive cachexis.

The therapeutic effects of thyroid gland, are the same whether administered by injection, grafting, or ingestion, which shows that the antitoxic action is due to the secretion of some active agent, introduced into the circulation by the gland, and also that the death of the animal does not destroy the active principle.

In 1893, Vermehren extracted from the thyroid a proteid substance, called by him "thyroidine," having the same therapeutic effects in myxedema as thyroid juice. In 1895, Notkin extracted a substance more toxic than his "thyroproteid," causing excitement of the nervous system. This second principle decomposes thyroproteid and destroys its toxicity. In 1895 it was discovered that heat, even ebullition, did not destroy the antitoxic action of the thyroid. Soon after this S. Frankel, of Vienna, isolated an active principle from the thyroid, having the same effect as thyroid juice on animals whose thyroid bodies had been removed. He called this substance "thyreoantitoxin." About this time Baumann extracted an iodized principle from the thyroid, called by him "thyroidine," which he considered the true and only active principle of the gland. This principle contains titro-

gen, a small percentage of phosphorus and about 10 per cent of iodine. The thyroidine is in combination with an albuminoid substance. Artificial digestion or strong acids are capable of separating the thyroidine from the albuminoid body. The former remains insoluble, while the albuminoid is dissolved and changed into a peptone. Most of the thyroidine is thus combined, the combination being called thyroiodalbumin. A small part is combined with a globulin and called thyro-iodo-globulin, and traces only of thyroidine exist free in the gland.

Baumann and Roos say the thyroid is the only organ of the body containing iodine. The proportion of iodine to a given thyroid varies with the species of the animal used, the individual of a given species, as well as with the diet of the animal. They also observed that there was no iodine in the thyroids of goitrous patients, and that the administration of iodine, or its use externally, increased the amount of iodine in the thyroid body.

Dr. Chassevant agrees with Baumann in his views as to this iodized principle and its state of combination in the thyroid.

Thyroid medication in its present form is not harmless, and should always be prudently prescribed. It has been demonstrated that there is some danger, during its use, of death from syncope. There have been several cases of idiosyncrasy to its use, such as the production of urticaria, delirium, erythema, glycosuria, nervous affections, etc. When these phenomena are present, diminish or discontinue the use of the gland, and they disappear. Overdosage of thyroid produces at times fever and tachycardia; at others emaciation, anorexia, thirst, vomiting, loose and bloody stools. Thoroid medication is indicated where there is suppression of the thyroid function, as in myxedema and goitre. It has given good results in the treatment of obesity, but should be carefully administered in these cases. Thyroid medication seems to give good results in the treatment of growth and idiocy. It has been used in many other affections, as in syphilis, exophthalmic goitre, lunacy, skin diseases, etc., but in the latter case its efficacy is by no means assured.

Habit of Snoring and Mouth Breathing.

The Philadelphia Polyclinic.

Dr. Woodbury reports from Dr. Vansant's clinic a case in which the habit of snoring and mouth breathing was cured by removal of the pharyngeal tonsil. A man 24 years of age, employed as assistant steward in a prominent hotel in this city, had acute middle ear inflammation, with ruptured membrana tympani, and rather free discharge from both ears. Dr. Woodbury discovered hypertrophy of the pharyngeal tonsil, a large mass of adenoid growth nearly filling the naso-pharynx and obstructing the posterior nares. The patient had been a mouth-breather for as long as he could remember, and was an inveterate snorer at night. He had also been subject to repeated attacks of sore throat and had had an attack of ear-inflammation of the same character as the present about a year previously. He also was found to have a strongly deflected septum with a horizontal ridge impinging upon the left interior meatus, the result of a fracture of the nose from a fall, when a child. He had had an operation for removal of a portion of the most prominent part of the septal ridge, in Chicago, some eight months before, by a specialist, according to his account, who had promised that the operation would cure him of his habit of mouth-breathing, but who neglected to examine the nasopharynx. No benefit resulted, to the patient, from the operation. The ear discharge under appropriate treatment ceased at the end of a week, and the patient was brought to the laryngological clinic for the removal of the adenoid tissue and the correction of deformity of the nose by refracture of the septum. Dr. Vansant removed the adenoids with Gottstein's curettes, after preliminary cocainization and without general anesthesia. There was very little bleeding, and it ceased spontaneously. The patient stopped snoring at night and greatly enjoyed the novel sensation of nasal respiration. In the course of the three weeks following the operation he gained fifteen pounds in weight, and this was not due to

any change in his habit of living, for he continued at work performing the exacting duties of his position. The proposed operation upon the crooked nose is chiefly for its aesthetic effect, and this has been deferred for the present as the patient had to leave the city on business.

Nose-Bleed

Medical and Surgical Reporter.

Lermoyes advises in slight cases of nose-bleed compressing the nose between the thumb and forefinger for ten minutes; if that be insufficient then apply locally a tampon moistened with a ten per cent. solution of antipyrin, which is an excellent hemostatic and much superior to cocaine 1.5, which latter not only has the disadvantage of being toxic, but also of being possibly followed by further hemorrhage after the vaso-constrictor action has passed away. It is also to be preferred to solutions of iron chloride, which are strong irritants and may give rise to gangrenous ulcers. In more severe cases a canal speculum is introduced, and the anterior portion of the nose tamponed with fine strips of iodoform gauze four inches in length and one in breadth. These are introduced with fine forceps. As the hemorrhages nearly always rise from the anterior portion of the nasal cavity there is no necessity of tamponing far back. Tamponade of the posterior nares is not only entirely unnecessary, but often brutally dangerous.

Suppuration of Stitches.

Medical Record.

Some writers explain the suppuration of stitches in carefully performed operations by the presence of pathogenic micro-organisms, normally in the underlying layers of the derma, which cause suppuration when exposed to the air. Remlinger states that most of the micro organisms found in the blood drawn from the fingers come from the lower layers of the skin. We know that flora of the superficial layers is extensive, but he announces that he has found staphylococcus albus twenty-three times, aureus eleven times, and citreus fourteen times, the streptococcus pyogenes eight times, and the colli bacillus five times, in his experiments with blood taken with a sterilized needle from the deeper layers of the skin of fifty healthy men. To avoid error the needle should not only be sterilized, but should be inserted while red hot. Dr. E. Blondel (*Journal de Med. de Paris*) says that surgeons might make their incisions with the thermo-cautery, but the same effect can be secured by disinfecting each stitch with alcohol. Dr. Blondell has received the practice taught by Theodoric and Mondeville, of bathing the wound with wine, and he has invariable success. In total perineorrhaphy, which is so difficult to perform with perfect asepsis, he has secured results far surpassing any previous achievements. He makes as few stitches as possible in the deeper layers, and wets them and the edges of the wound with ninety per cent. alcohol, and sponges the tissues with a cotton pad dipped in it. The final suture is sponged with strong alcohol and then dusted with iodoform or equal parts of dermatol and aristol, repeated every second day afterward. Alcohol dries the surface better than any other substance. It has a coagulating effect on the serum, and thus favors cicatrization.

The Absorption of Iron in the Intestine and its Relation to the Blood.

New York Medical Journal.

In the *Presse medicale* M. Chassevant states that M. Cloetta has made some experiments in regard to the elimination of iron in the economy. For this purpose he used ferratin, which exercises no caustic action on the tissues. His experiments demonstrated that, in dogs which were subjected to a milk diet, the iron injected into the veins in the form of ferratin was eliminated by the large intestine. Quincke had also ascertained this by micro chemical examination. The author also investigated

the means of assimilation of this element when administered by the digestive tract, and he found that twenty per cent. of a dose of ferratin introduced into the stomach of a dog subjected to a milk diet was absorbed.

According to M. Cloetta, the organic combination of iron with albuminoid matter is necessary in order to insure its absorption. For instance, two dogs were experimented upon as follows: Their food consisted of soup made of starch, sugar, glucose and distilled water. To the nourishment of the first dog, a solution of iron chloride representing sixty milligrammes of iron was added; to that of the second dog, a solution of ferratin representing forty milligrammes of iron. The villosities of the dog to which ferratin had been given, presented the characteristic action of the iron absorbed. The iron contained in the intestine of the other dog was not absorbed, and formed masses at the base of the villosities. The organic iron combined with albuminoids is evidently absorbed in the intestine, and enters the circulation by the mesenteric veins.

Experiments made by Cloetta with newborn dogs demonstrated that the presence of iron salts in the food were not immaterial to the formation of hemoglobin, that there was no absorption of iron salts, and that the liver seemed to regulate absorption in the same way as it did glycogenesis.

Causes of Bad Taste and Odor in the Mouth.

American Medico Surgical Bulletin.

The notion existing among the laity, and also among physicians, that gastric disturbances are almost exclusively responsible for a bad taste in the mouth, is wrong, says Dr. Herzefeld, in the *Therap. Monats.* Only second to affections of the stomach as an etiological factor, are the tonsiliar crypts, in which there accumulate mucus, dead epithelial cells and particles of decomposing food. These cheesy accumulations sometimes come out spontaneously and have a fecal odor. The reason they are so frequently overlooked is because they are concealed by the anterior pillars of the fauces, and can be seen only by using a retractor. The treatment consists in removing the tonsils or in slitting the crypts open with a narrow curved knife. Among the other causes of bad taste the author enumerates: carious teeth, inflammations of the mouth and throat, adenoids, ozena, suppuration in the nose and accessory cavities, suppurative inflammation of the ear, and lastly, the cause may be of a nervous nature (paræsthesia gustatoria).

Summer Diarrhea.

Dr. Griffith, at the Philadelphia Polyclinic, has employed the following treatment for summer diarrhea. After the bowel is relieved of the irritating material by a dose of castor oil or calomel, administer:

℞ Phenyl salicylate, ʒ j
Bismuth salicylate, ʒ iij
Ol. Gaultheria, m xij
Chalk mixture to make ʒ iij

M. Sig.—2 fluid drachms every two hours. Opium may be added if there is much pain.

Acute Follicular Tonsillitis.

Chicago Clinical Review.

In the treatment of this condition Dr. E. Fletcher Ingals, of Chicago, recommends the application to the inflamed tonsil of a 50 per cent. solution of guaiacol in oil of sweet almonds. Internally:

℞ Potass, bromid, gr. lxxx
Sodii salicylate, ʒ j
Tr. opii deod, ʒ j
Cascara cordial, ad ʒ j

M. Sig.—Teaspoonful every four hours in water.

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